

# CDP-801 WIRELESS DOORPHONE

## INSTRUCTION MANUAL



ZA-650 Gatestation with Handset  
 ZA-651 Extra Handset  
 ZA-652 Extra Gatestation (back)

### Overview:

The Zartek Digital Wireless Intercom is our third generation system newly developed following six years of R&D. It is fully approved by ICASA. Applications for this system include houses, offices, cottages, security access points. This system is well suited for self installation.

The gatestation is a single button which can be linked to as many handsets or extra gatestations as needed. Communication is simplex so only one person can speak at a time but the gatestation's microphone is always active so the visitor does not have to press any key to speak. The inside handset can enter into the conversation at any time by pressing a PTT button. Gate opening and closing is triggered from the handset for a motorized gate or striker lock. Range is terrain dependant and is 50-70m in built-up areas and more in open areas.

Thank you for purchasing this Digital Wireless Doorphone System. Your system has been manufactured and checked under the strictest possible quality control to ensure that each system leaves the factory in perfect condition. In the unlikely event you find any defect or experience any problem, please contact our service center or dealer, do not attempt to repair by yourself.

Please read this manual carefully to obtain optimum performance and extended service life from the system.

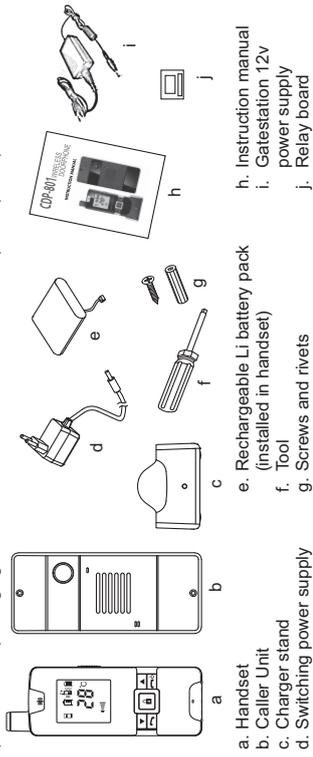
For more information please check our website [www.zartek.co.za](http://www.zartek.co.za)

### Features

- Digital Radio Communication
- Hands-free Use for Visitor & PTT for Resident
- Gate Triggering (relay included)
- Gate powered from supply (included) or gate motor 12v
- Battery Back-up with 3 AAAA batteries (not included)
- Manual Programming (see manual for details)
- Mount on standard gooseneck or against wall
- Selectable audio, visual or vibration alert
- Outdoor temperature reading on handset
- Handset with rechargeable Li-ion battery
- Low risk of lightning damage
- Out-of-range and low battery level alert
- Multiple Handsets (ZA-651 optional extra handset)
- Additional Gatestations (ZA-652 optional extra gatestation)
- Intercom function between handsets
- 1 Year limited warranty (see manual for details)
- Fully approved by ICASA (TA 2012/845)

### Standard Accessories

(Check outer packaging for included items as there are different pack options)



## Getting Started

### Range Test

Typical range is 50-70m from the gate to house. If the area is very built-up or full of trees the range may be lower. Range will improve when there are less obstructions in the way. Placement of gatestations and handsets will affect the range so make sure to choose places as open as possible away from metal, concrete or electrical devices.

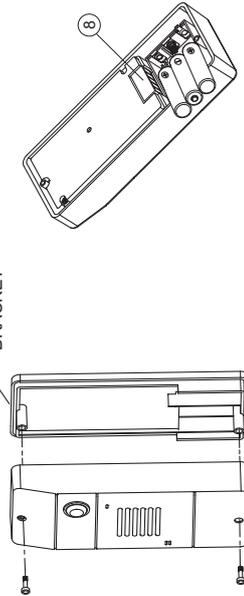
It is recommended to conduct a range test before installing to determine where to mount the gatestation and place the handsets. Two people need to do the test.

- 1) Power the gatestation with 3 x AAA alkaline batteries
- 2) Fully charge the handset
- 3) Temporarily place the gatestation near the gate, gooseneck or wall and press the bell
- 4) Answer on the handset and walk to the various places in the house to check audio quality
- 5) Handset should be left to charge in the location with best audio
- 6) Permanently install the gatestation, connect 12v and relay to control gate

### A. Power Supply

#### Caller unit

#### MOUNTING BRACKET



#### Battery:

Battery supply is only intended for back up power as the batteries will run flat within a few days if no other supply is connected.

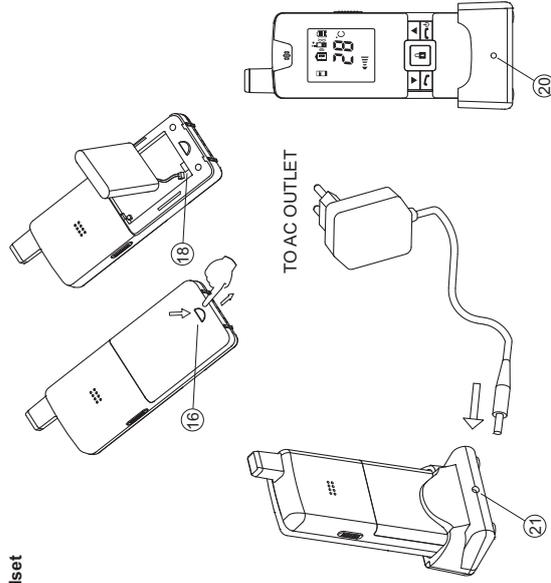
With the supplied tool, loosen the screw that hold the unit from mounting bracket. The screws are specially made for anti-theft purpose, it is necessary to keep the tool in safe place as you may need it later when replacing batteries. Insert three UM-4 size AAA alkaline cells into battery compartment, observe correct polarity. We strongly recommend using alkaline batteries instead of rechargeable batteries because at low temperature (below 0°C), rechargeable type has poor performance and its capacity will fall.

#### 12v Supply

For permanent installations, the gatestation must be powered from 12v. You can use the supplied 12v power supply or 12v DC from a gate motor. Connect the DC supply to the terminals ⑧ at the back marked with  $\begin{matrix} + \\ 12V \\ - \end{matrix}$ .

In case of DC supply failure, the unit will automatically switch to power from alkaline batteries (if installed).

## Handset



Handset can remain permanently in the cradle and it will not overcharge.

Battery life out the cradle is 15 hours on normal use.

If the handset behaves strangely or does not turn on, reset it by removing and replacing battery.

1. The supplied Li polymer battery pack is already installed in the handset. To replace, press down the lock button (18) and slide open the battery door, take out the battery pack and disconnect from socket (18).
2. Keep the handset switched off and place it into the charger stand.
3. Plug in the supplied AC switching power supply into an AC outlet and connect its output plug to the DC jack (21) located at the back of charger stand.
4. The charging indicator (20) should light up red during charging process. Adjust the position of handset in charger stand in case this indicator does not light up. During charging, the battery level icon P will show up in LCD and the segments inside the icon will flash in turn.
5. The battery pack should be fully charged up within 4 hours when used for the first time. The charging indicator (20) will show steady green. The icon P will disappear or remain shown up in LCD if unit is switched on.
6. Now the unit can be switched on and ready for operation. Either take out the unit or keep it in the cradle permanently. No damage will be caused to the battery. In the latter case, when the battery is being consumed and voltage falls to a certain level, the charger stand will automatically charge up the battery. The segments inside the icon P will flash in turn whenever the unit is under charging.

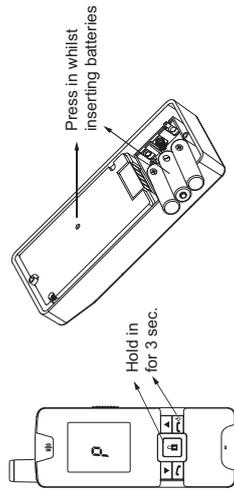
**CAUTION : MAKE SURE THE BATTERY IN HANDSET IS RECHARGEABLE TYPE BEFORE YOU PLACE IT IN THE CHARGER STAND, OTHERWISE EXPLOSION MAY RESULT.**

## B. Pairing the Handset and Caller unit

This process is to match the caller unit with handset so that they can communicate with each other while no other devices (even doorphone of identical model) can interfere with you or receiving your signal.

The caller unit and handset are already paired with factory preset code when they are shipped from factory. However, we recommend you perform pairing again to achieve better privacy and to avoid false triggering of door lock from nearby doorphone system.

To perform pairing process, it is necessary to use alkaline batteries as power supply in the caller unit while the 12V DC supply should be disconnected temporarily.



1. Place the caller unit and handset close to each other within a distance of 1m.
2. With the handset in switch off mode, press and hold Power ON/OFF button **12** and door lock open button **13** together for around 3 sec to enter pairing mode. The LCD will become backlighted and show a flashing letter "P".
3. Press and hold the pairing button **7** at back of caller unit while installing the alkaline batteries. The call indicator **4** will start flashing after 3 sec, showing that the caller unit has entered pairing mode.

Perform same for the caller unit that is intended to be used in backgate.

4. Now release the pairing button **7**, press call button **1** on the frontgate caller unit (DO NOT press call button on the backgate caller unit). Two "Di Di" sound will be heard and at the same time, the letter "P" and **4** (or **5**) in case there is a backgate caller unit) will show steady in LCD of handset once pairing is successful. The call indicator **4** on both frontgate & backgate caller unit should stop flashing and remain steady on.
5. Long press the Power ON/OFF button **12** to switch off handset. Take out the alkaline batteries from caller unit and then re-install again or connect to the 12V DC supply.

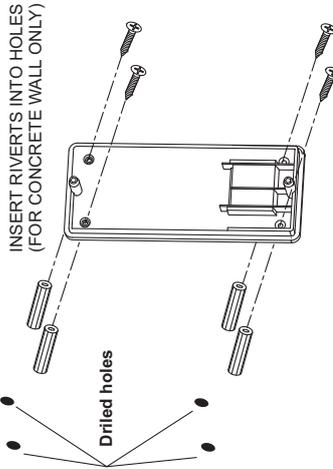
6. The doorphone is now ready for operation.

If the pairing process is not successful (the "P" continues to flash in LCD of handset), repeat the procedures from step 1 again.

**N.B.** In case you are having two or more handsets as well as backgate caller unit, always perform pairing process with all caller units and handsets together and with the handsets being set in pairing mode first.

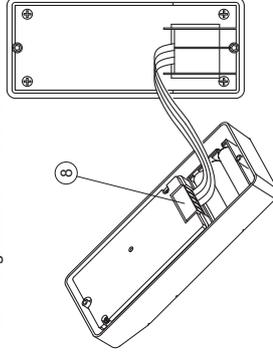
Remember every time you add on new units to the system, either handset or caller unit (for backgate use), it is necessary to perform the pairing process all over again with all the units together or otherwise the new units will not work with your original system.

## C. Mounting of Caller Unit



### Location:

Select a suitable place for the gatestation such as on a gooseneck or wall. The mounting plate should be fitted on a flat wall surface so the provided screws will fix properly. It is very important that the gatestation is not embedded into a wall or covered by any metal rain shield or cover. Wireless radio signals will be blocked by concrete or metal so for maximum range, use a gooseneck with the smallest metal backing plate. For maximum range it is also recommended not to mount the gatestation near other electronic equipment.



### Power:

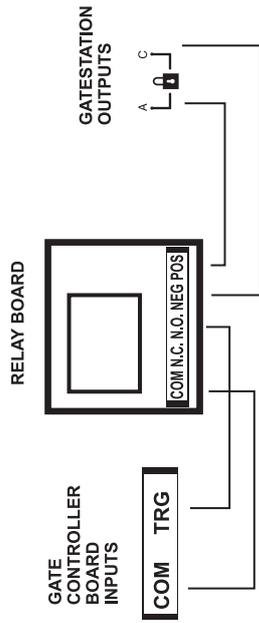
Connection the 12v DC supply ( provided power supply) or from a gatemotor to the terminals at the back of the gatestation **12VDC**. A connector with plug has been provided for your convenience to be able to disconnect easily. If the provided power supply is not used, it is still recommended to use the plug which must be cut off the power supply.

Gate triggering can only be done if there is a 12v supply connected.

There are 3 trigger output connections. Points A,C give a 12v output and A,B a 0v when triggered **12V** and **12V**. It is recommended using the provided relay board which will protect and isolate the gatestation from any surges. The relay board POS and NEG connections should be linked to the points A,C and the LED on the relay will light when the gatestation is triggered from the handset. Connect the COM and N.O. points on the relay board to the COM and TRG points on the gate controller board.

Where DC supply is available, the call button **1** will be automatically illuminated once the environment gets dark. This feature and electric door latch opening feature will not operate when using alkaline batteries so as to keep long battery life.

**CAUTION** : When using DC supply, in case the electric door latch does not function, reverse the polarity connected to **12VDC** and try again.



**Always close**

These two terminals normally provide a 12V supply. During communication, once the door lock opening button **13** is pressed, this voltage will drop to 0V temporarily for 3 seconds.

**Always open**

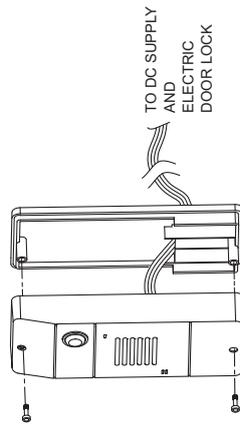
These two terminals normally provide 0V. During communication, once the door lock opening button **13** is pressed, the terminals will provide a 12V supply temporarily for 3 seconds.

Under no circumstances should AC mains Voltage be directly connected to the terminal blocks **8**.

**Auxiliary terminal**

These two terminals act like a switch and will be short circuited as long as the door bell button **1** is pressed, however, there is no voltage supply from the terminals. They can be used to trigger a conventional door chime or a courtesy light at the entrance.

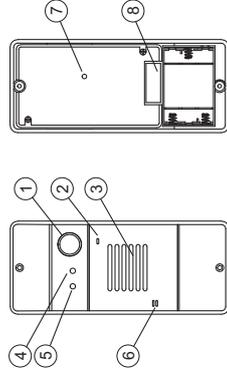
Now insert the 3 pcs AAA (UM-4) alkaline batteries into battery compartment as this can serve as a battery back-up in case the 12V DC supply fails.



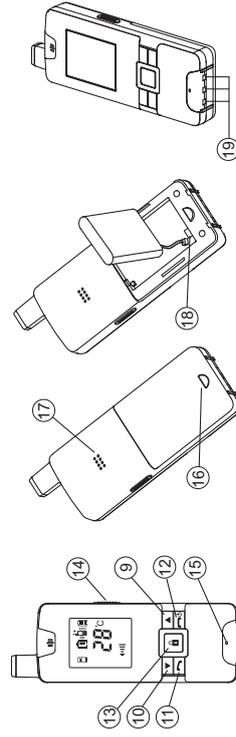
Install back the caller unit onto mounting bracket using the supplied tool.

The caller unit is housed in a high impact ABS/PC cabinet which can achieve professional grade ruggedness required in most outdoor application. Rubber gaskets seals around all joints keep out dust, rain, snow and spray, assuring years of reliable operation even in harsh environment. The unit meets to IP-54 standard and can operate from -20°C to 50°C.

**Controls Layout**



**Caller unit**



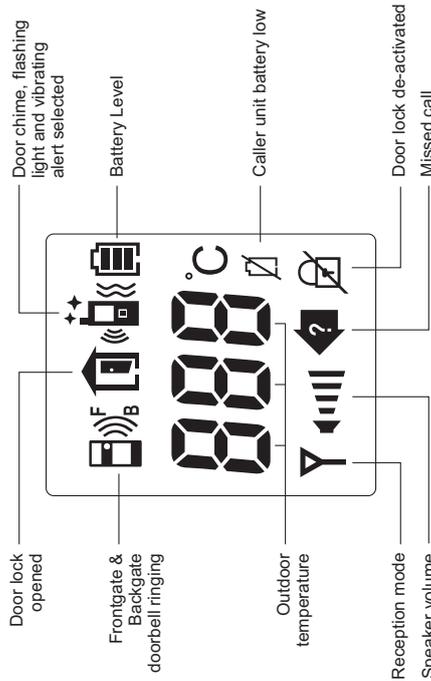
**Handset**

**Charging Stand**

1. Call button
2. Microphone
3. Speaker
4. Call indicator
5. Light sensor
6. Temperature sensor
7. Pairing button
8. Terminal block
9. Volume up button
10. Volume down button
11. Answer button

12. Hang up and power ON/OFF button
13. Door lock open button
14. Press-to-talk (PTT) button
15. Microphone
16. Battery door lock button
17. Speaker
18. Li battery socket
19. Charging contacts
20. Charging indicator
21. DC jack

## LCD



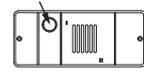
■ Flashing

■ Steady light up

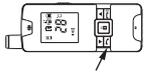
A		Frontgate doorbell ringing	J		Door chime and vibrating alert selected
B		Backgate doorbell ringing	K		Flashing light and vibrating alert selected
C		Missed call F (Frontgate) B (Backgate)	L		Door chime, flashing light and vibrating alert selected
D		Reception mode	M		Door lock opened
E		Out of range alert F (Frontgate) B (Backgate)	N		Caller unit battery low F (Frontgate) B (Backgate)
F		Door chime alert selected	O		Self battery low
G		Flashing light alert selected	P		Battery level
H		Vibrating alert selected	Q		Speaker volume
I		Door chime and flashing light alert selected	R		Door lock de-activated

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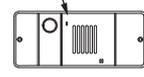
## Basic Operation



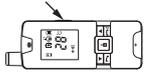
VISITOR  
PRESSES



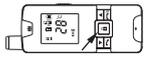
HANDSET  
RINGS &  
ANSWERED



VISITOR  
SPEAKS



RESIDENT  
PRESSES  
TO SPEAK



RESIDENT  
OPENS  
GATE

## Detailed Operation

### Powering Handset

Switch on the handset by a long press (over 3 seconds) of the Power ON/OFF button . Press the same button again in case you want to switch off the unit.

The LCD screen will show up. In case the self battery low icon appears and an alarm heard, the battery has run down and needs to be recharged by placing the unit into the charger stand. During charging, the segments inside the battery level icon will flash in turn irrespective the unit is switched on or off. To protect battery, if the unit is not being re-charged when the icon shown up, it will be switched off automatically after 10 minutes.

### Setting Ring Type

To select the different methods of incoming call alert, press and hold the Volume Up/Down buttons & simultaneously for 2 sec to enter the selection mode. Use the Volume Up or Down button to choose one of the seven alert methods, shortly press the Hang up button to confirm your selection and return to normal operation mode.

Depending on your selection, either one of the icons F to L will be shown on the screen. Note that in case you select a combination with vibrating alert, the battery will run down more easily.

### Setting Audio Volume

During conversation, the sound volume heard through the speaker can also be adjusted using buttons & and the speaker volume icon will change correspondingly. Please note the loudness of door chime is fixed and cannot be adjusted.

### Gatestation Ring Functions

Make sure there is power supply to the caller unit (either by 12V DC or alkaline batteries). Now press the Call button , a ding-dong tone will be heard and the Call indicator starts flashing. Until a handset answers the call, the ding-dong tone will be heard periodically, reminding the visitor to keep waiting. In case there is no answer after 20 seconds, the caller unit ends the call by itself and the Call indicator goes off. Press the Call button to initiate the call again.

**N.B.** In case there are two caller units (frontgate and backgate), only the unit whose call button is first pressed will send out a call signal to handset, the remaining unit will keep in standby mode until the conversation is over. If its call button is pressed during this period, a two "Be-Be" sound will be heard and the call indicator flashes for two times, indicating the unit is under standby mode.

Once the call is being answered, the Call indicator will light up steady and the ding-dong tone stops ringing. Conversation can now be conducted by speaking into the Microphone .

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### Answering Call

Upon receiving a call, either icon A  or icon B , appears on the screen, depending the call is from the front gate or back gate (in case you have purchased an optional caller unit for back gate). The handset can answer the call by pressing the Answer button  and the reception mode icon D  will show up in LCD.

Now conversation is possible and the voice of visitor can be heard from speaker . To talk back to visitor, press and hold the PTT button  and speak towards the Microphone . reception mode icon Y  goes off. Release PTT button  after finish speaking so you can now listen to visitor, reception mode icon D  show up again. It should be noted that the voice of visitor will not be heard while pressing the PTT button . Upon finishing a conversation, press the Hang up button  to end the call.

This system has an automatic end call feature. In case the resident does not talk back to visitor (i.e. press the PTT button  ) for over 90 sec, the call will be ended automatically.

### Door Opening/Closing

Once a call has been answered, you can use the Door lock open button  to remotely open the electric door latch for visitor (this function is only available if there is 12V DC supply to the caller unit and your door is equipped with an electric latch). Press the button  shortly, wait for 4-5 seconds and the icon M  appears on the screen, showing the door latch is opened. The icon M  will disappear after 3 sec.

Under standby mode (i.e. when no call is set up between handset and caller unit), the electric door latch can also be opened by long press of button  for over 2 sec. The Call indicator  on caller unit also light up for 2 sec.

To avoid misuse by children, this door lock opening function can be activated or deactivated. When deactivated, pressing the button  will have no effect.

### Deactivate door lock opening feature

Under normal operating mode, press shortly the button  then within a period of 2 sec, press shortly the button . The Door lock de-activated icon R  will show up on LCD screen.

### Activate door lock opening feature

Perform same procedure as above, the Door lock de-activated icon R  will disappear from the LCD screen.

### Multiple Handsets

For system equipped with several handsets, all the handsets will be alerted with an incoming call. However, only the handset which first press the Answer button  can set up conversation with caller unit. The remaining handsets will return to standby mode and their buttons become deactivated until the conversation ends, making them impossible to interfere with the conversation.

### Missed Call

In the event of an unanswered call from a visitor (e.g. you are away from home or located at a place which is out of range from the caller unit), the icon C  will appear on the screen. This icon is useful to remind you somebody has called. Press any button momentarily to remove this icon.

### Out-of-range Alert

Whenever a handset is located at a spot which is outside the communication range of the caller unit (either front of back gate), an alarm will be heard and the icon E  will appear on the screen. Such alarm cannot be immediate and will alert you only when you are out of range for over 2 minutes (when 12V DC supply is available or 20 minutes if battery is used). Press any button momentarily can stop the alarm but the icon E  still remains. Once the handset falls back in range, the alarm will stop and the icon E  disappears.

**N.B.** This out of range alert will also occur in case the batteries of caller unit run down and its DC power is cut off.

### Low Gatesation Battery or No Power Alert

Under normal operation, the back-up alkaline battery inside the caller unit (we suggest using good quality battery such as Duracell) can last for 2-3 months. When there is no 12V DC supply and the batteries become run down, the icon N  appears on the screen and an alarm will be heard, reminding you to replace with new batteries in the respective caller unit. Press any button momentarily can stop the alarm but the icon N  still remains until new batteries are installed.

**N.B.** In case the handset is out of range and the caller unit battery low happen at same time, then only the out of range icon E  is shown and its alarm will be heard.

### Outdoor Temperature

The outdoor temperature indication provides you with an idea about the weather which is useful if you plan to go outside of your home. When the system is first installed, the LCD will show the default setting of - °C. Once the caller unit senses the outdoor temperature, the correct reading will be shown on the LCD of handset. To obtain a correct reading of outdoor temperature, the ventilation to temperature sensor  should not be blocked.

### Handset Buttons

Whenever the buttons (except PTT button  ) on handset are pressed, a tone will be heard to validate your entry.

### Gatesation Backlight

Once the Light sensor  detects a low light intensity, the Call button  on caller unit will become automatically backlighted (only if 12V DC supply is available).

### Intercommunication Between Handsets

This function is applicable only if you have two or more handsets. Please note all units must be paired together.

- Under standby mode, momentarily press Answer button . a "do – do" sound will be heard.
- The called handset will show the selected incoming call alert. Press Answer button  to answer the call. The "do-do" sound on the calling handset will stop.
- Now both handsets can converse with each other using the PTT button .
- Either party can press the Hang up button  to end the conversation.
- The call will also be ended automatically if the PTT buttons  on either party is not pressed for over 60 sec.

For system with more than two handsets, the incoming call alert on remaining handsets will stop once the call is being answered. In case nobody answer the call, the alert will stop 20 seconds later.

**N.B.** Selective call of a particular handset is not possible. Whenever an handset initiates a call, all the remaining units will be alerted and can answer to the call. However, only the unit who first press the Answer button  can reply to the call, all others will be excluded from the intercom.

**CAUTION :** The two handsets under intercom may not be able to detect a call from the caller unit. So it is advisable to keep the intercom conversation short.

### PRECAUTION

- Use only the supplied AC switching power supply. Use of other supply may cause damage to the handset.
- Do not mix using old and new alkaline batteries in caller unit.
- When not using the doorphone for a long period of time, remove all batteries from handset and caller unit to avoid battery leakage.
- Do not leave the handset expose to strong sunlight for a long period of time or near any heat source, moisture and excessive dusty environment.
- Do not open the cabinet, no serviceable parts inside.
- When using for the first time, switch off the handset and charge up the supplied battery pack for 4 – 5 hours using the charger stand.

### Warranty

This product is warranted by Zartek against manufacturing defects in materials and workmanship under normal use for a 12 month period from date of purchase via our authorised appointed dealers.

### TROUBLE SHOOTING GUIDE

Problem	Possible Causes	Solution
Handset and Caller unit cannot communicate	Handset and Caller unit has different ID code Battery has run down	Perform pairing process Replace new battery in Caller unit Recharge battery in Handset using charger stand.
Communication distance become short	Many steel structures between Handset and Caller unit Battery has run down	Relocate the position of Handset Replace new battery in Caller unit Recharge battery in Handset using charger stand.
Out-of-range alert always on	No power supply to Caller unit	Replace new battery or check DC supply to Caller unit.
Self battery low icon always on	Battery pack is damaged and cannot be recharged.	Replace new battery pack
Door latch cannot be remotely opened by handset	Door lock opening button  is deactivated No DC supply to Caller unit Wrong connection at terminal block	Activate door lock opening button  Check if DC supply is available Make proper connection
Cannot perform intercom between Handsets	The unit are not properly paired Battery has run down	Perform pairing process Recharge battery using charger stand
New Caller unit (backgate) cannot communicate with indoor unit	The new unit is not properly paired to existing units	Perform pairing process
Handset or Gatestation has no power or is frozen	Battery faulty or flat Software is confused	Replace battery Reset unit by removing all power and then reconnecting